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Control of Vines in Ohio Timberlands

By

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In recent years great advances have been made in the chemical control of undesirable plants with materials that are unharmful to man or animals.

Experimental test plots in four Ohio woodlots proved that 2,4-D and 2,4,5-T can be very useful in control of destructive vines in woodlands where they are damaging timber. 2,4,5-T may be used alone diluted with fuel oil or kerosene or in mixture with 2,4-D, commonly designated commercially by the term "Brush-killers". 2,4-D alone often gave a good initial kill followed by vigorous root-sprouting the following growing season, thus is not recommended for vine control.

The most effective treatments were 2,4,5-T (4 lbs. acid equivalent) mixed one to ninety or "Brush-killer" (2 lbs. acid equivalent 2,4-D and 2 lbs. acid equivalent 2,4,5-T) mixed one to fifty in fuel oil or kerosene, when used as a dormant basal spray. The lower 18 inches and "root crown" are sprayed to the point of run-off. The low volatile esters of these chemicals are superior for this purpose. These sprays may be applied with either a pack or garden type sprayer.

Ammonium sulphamate (Ammate) at the rate of three pounds per gallon of water (Ammate is not soluble in fuel oil or kerosene) was effective as a foliage spray when sprayed on vines which were entirely on the ground and not in the tree crowns. 2,4,5-T and the "Brush-killers" were also effective on "ground vines" as foliage sprays when diluted with water at the rate of one to fifty and one to twenty respectively. The foliage sprays were not as successful as the oil dormant sprays, however, and more damage was caused due to drift, especially with the formulations containing 2,4,5-T.

Another method which was quite successful where vines consisted of the larger scattered individual vines reaching into the tree-tops in dense stands of larger timber, was to paint 2,4,5-T diluted one to fifty, or "Brush-killer" diluted one to twenty in fuel oil or kerosene, on the lower 18 inches of the vines and root crown with a four or five-inch paint brush. Vines may be painted at any season and there is no damage from drift.

Under no circumstances should vines be cut before treating, as most treatments are rendered ineffective in control of sprouting and labor costs are nearly doubled.

Costs of treatment with dormant spray averaged $18.00 to $20.00 for materials and labor per man-day, with the area effectively covered depending entirely upon the nature and concentration of vines. The foliage sprays were cheaper to apply ($12.00 to $15.00 per man-day) but were not as efficient as the dormant basal sprays. The costs of application with the paint brush were similar to foliage sprays and were quite successful on scattered individual vines (very ineffective and inefficient on larger, dense, tangled "masses" of vines, however).

In all cases a second, "mop-up" application should be planned for the following year for best results.

Concentrated paints or dyes may be added to solutions to mark treated vines. This will save labor costs on either basal spray or paint brush methods.

When applying basal (dormant) sprays it is essential that complete coverage of all rooted vines be obtained. When possible, the root-crowns should be located and saturated thoroughly to the point of run-off; as with the lower 18 inches of all layered (rooted or in contact with the ground) stems. Likewise, when summer foliage sprays are applied, all leaves must be reached and wetted to the point of run-off.